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Conference Abstract

Visualizing Biodiversity Information using Wikidata and Scholia

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Abstract

Biodiversity research and education take place in a socio-cultural ecosystem that connects researchers and educators with the objects and methods of study, with facilities and organizations as well as with the natural and cultural worlds they are embedded in. Data about these different kinds of entities is typically distributed across a wide range of databases and other resources that differ not only in their scope and accessibility but also in the ways in which they model the data and link it to other parts of the knowledge ecosystem.

Over the course of the last ten years, many resources have been integrated systematically with Wikidata - a multilingual, open and FAIR platform for the collaborative curation of general reference data (Vrandečić and Krötzsch 2014). Wikidata approaches data integration and data curation with the "anyone can contribute" spirit that it adopted from its older sibling Wikipedia, extending this spirit to facilitate automated contributions and explorations.

This presentation will zoom in on visualizing biodiversity-related information in Wikidata, highlighting research and education aspects as well as associated curation workflows and

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the role of standards in enabling, enriching, maintaining, expanding and refining such workflows. Special attention will be paid to demo-ing Scholia, an open-source Wikidata frontend (Nielsen et al. 2017) that can be used to visualize and explore what Wikidata knows about fields of study as well as relevant institutions, taxa, collections, individuals, funders, databases, locations, publications, methodologies, ontologies and related matters, including relevant hypotheses and terminology in multiple languages.

While examples will be drawn from many corners of biodiversity, special emphasis will be given to information pertaining to the study and management of biological invasions (Jeschke et al. 2021).

Keywords

biodiversity data; collaborative curation; linked open data; interoperability; multilingual information; biological invasions; data visualization; citizen science;

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